



## V.M.G.R.R SRI SARADA SAKTHI MAT. HR. SEC. SCHOOL

**STD: XII**
**BIOLOGY**
**MARKS-50**
**I.CHOOSE THE CORRECT ANSWER :**
**30X1=30**

- Tectona grandis* is coming under family
  - Lamiaceae
  - Fabaceae
  - Dipterocarpaceae
  - Ebenaceae
- Plants having similar genotypes produced by plant breeding are called
  - clone
  - haploid
  - autopolyploid
  - genome
- People's movement for the protection of environment in Sirsi of Karnataka is
  - Chipko movement
  - Amirtha Devi Bishwas movement
  - Appiko movement
  - None of the above
- Which one is in descending order of a food chain
  - Producers → Secondary consumers → Primary consumers → Tertiary consumers
  - Tertiary consumers → Primary consumers → Secondary consumers → Producers
  - Tertiary consumers → Secondary consumers → Primary consumers → Producers
  - Tertiary consumers → Producers → Primary consumers → Secondary consumers
- Pond ecosystem is
  - not self sufficient and self regulating
  - partially self sufficient and self regulating
  - self sufficient and not self regulating
  - self sufficient and self regulating
- Pedogenesis refers to
  - Fossils
  - Water
  - Population
  - Soil
- Mycorrhiza promotes plant growth by
  - Serving as a plant growth regulators
  - Absorbing inorganic ions from soil
  - Helping the plant in utilizing atmospheric nitrogen
  - Protecting the plant from infection
- Totipotency refers to
  - capacity to generate genetically identical plants.
  - capacity to generate a whole plant from any plant cell / explant.
  - capacity to generate hybrid protoplasts.
  - recovery of healthy plants from diseased plants.
- Micro propagation involves
  - vegetative multiplication of plants by using micro-organisms.
  - vegetative multiplication of plants by using small explants.
  - vegetative multiplication of plants by using microspores.
  - Non-vegetative multiplication of plants by using microspores and megaspores.
- pBR 322, BR stands for
  - Plasmid Bacterial Recombination
  - Plasmid Bacterial Replication
  - Plasmid Boliver and Rodriguez
  - Plasmid Baltimore and Rodriguez
- Which of the following one is used as a Biosensors?
  - Electrophoresis
  - Bioreactors
  - Vectors
  - Electroporation
- Assertion (A):** Gamma rays are generally use to induce mutation in wheat varieties.  
**Reason (R):** Because they carry lower energy to non-ionize electrons from atom

- a) A is correct. R is correct explanation of A
- b) A is correct. R is not correct explanation of A
- c) A is correct. R is wrong explanation of A
- d) A and R is wrong

13. Fruit colour in squash is an example of

- a) Recessive epistasis
- b) Dominant epistasis
- c) Complementary genes
- d) Inhibitory genes

14. In his classic experiments on Pea plants, Mendel did not use

- a) Flowering position
- b) Seed colour
- c) Pod length
- d) Seed shape

15. The scar left by funiculus in the seed is

- a) tegmen
- b) radicle
- c) epicotyls
- d) hilum

16. The mode of reproduction in bacteria is by

- a) Formation of gametes
- b) Endospore formation
- c) Conjugation
- d) Zoospore formation

17. Which one of the following menstrual irregularities is correctly matched?

- a. Menorrhagia - excessive menstruation
- b. Amenorrhoea - absence of menstruation
- c. Dysmenorrhoea - irregularity of menstruation
- d. Oligomenorrhoea - painful menstruation

18. The approach which does not give the defined action of contraceptive is

- |     |                        |  |
|-----|------------------------|--|
| (a) | Hormonal contraceptive | Prevents entry of sperms, prevent ovulation and fertilization                                  |
| (b) | Vasectomy              | Prevents spermatogenesis   |
| (c) | Barrier method         | Prevents fertilization   |
| (d) | Intra uterine device   | Increases phagocytosis of sperms, suppresses sperm motility and fertilizing capacity of sperms |

19. A mRNA molecule is produced by

- a) Replication
- b) Transcription
- c) Duplication
- d) Translation

20. The total number of nitrogenous bases in human genome is estimated to be about

- a) 3.5 million
- b) 35000
- c) 35 million
- d) 3.1 billion

21. The phenomenon of "Industrial Melanism" demonstrates

- a) Natural selection
- b) induced mutation
- c) reproductive isolation
- d) geographical isolation

22. Darwin's finches are an excellent example of

- a) connecting links
- b) seasonal migration
- c) adaptive radiation
- d) parasitism

23. The most common substrate used in distilleries for the production of ethanol is \_\_\_\_\_

- a) Soyameal
- b) Groundgram
- c) Molasses
- d) Corn meal

24. The purpose of biological treatment of waste water is to \_\_\_\_\_

- a) Reduce BOD
- b) Increase BOD
- c) Reduce sedimentation
- d) Increase sedimentation

25. The gases produced in anaerobic sludge digesters are

- a) Methane, oxygen and hydrogen sulphide.

- b) Hydrogen sulphide, methane and sulphur dioxide.  
 c) Hydrogen sulphide, nitrogen and methane.  
 d) Methane, hydrogen sulphide and CO<sub>2</sub>.
26. The genetic defect adenosine deaminase deficiency may be cured permanently by  
 a) Enzyme replacement therapy  
 b) periodic infusion of genetically engineered lymphocytes having ADA cDNA  
 c) administering adenosine deaminase activators  
 d) introducing bone marrow cells producing ADA into embryo at an early stage of development.
27. How many amino acids are arranged in the two chains of Insulin?  
 a) Chain A has 12 and Chain B has 13  
 b) Chain A has 21 and Chain B has 30 amino acids  
 c) Chain A has 20 and chain B has 30 amino acids  
 d) Chain A has 12 and chain B has 20 amino acids.
28. PCR proceeds in three distinct steps governed by temperature, they are in order of  
 a) Denaturation, Annealing, Synthesis  
 b) Synthesis, Annealing, Denaturation  
 c) Annealing, Synthesis, Denaturation  
 d) Denaturation, Synthesis, Annealing
29. Which of the following is correct for r-selected species  
 a) Large number of progeny with small size  
 b) large number of progeny with large size  
 c) small number of progeny with small size  
 d) small number of progeny with large size
30. Assertion: The Environmental conditions of the tropics are favourable for speciation and diversity of organisms.  
 Reason: The climate seasons, temperature, humidity and photoperiod are more or less stable and congenial.  
 a) Both Assertion and Reason are true and Reason explains Assertion correctly.  
 b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.  
 c) Assertion is true , but Reason is false.  
 d) Both Assertion and Reason are false.

**II.ANSWER THE FOLLOWING QUESTIONS :****10X2=20**

31. Write the various steps involved in cell suspension culture.
32. Give the examples for micro propagation performed plants .
33. Write any three Advantages of Artificial seeds
34. Differentiate Somaclonal variations and Gametoclonal variations
35. List out the major gases seems to be found in the primitive earth.
36. Explain the three major categories in which fossilization occur?
37. Differentiate between divergent evolution and convergent evolution with one example for each.
38. Rearrange the descent in human evolution  
*Australopithecus* → *Homo erectus* → *Homo sapiens* → *Ramapithecus* → *Homo habilis*.
39. Mention the main objections to Darwinism.
40. Taking the example of Peppered moth, explain the action of natural selection. What do you call the above phenomenon?
41. Expand (i) CFC (ii) AQI (iii) PAN
42. What is SMOG and how it is harmful for us?
43. List all the wastes that you generate, at home, school or during your trips to other places. Could you very easily reduce the generation of these wastes? Which would be difficult or rather impossible to reduce?

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